



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/570,911

12/08/2006

Xiuyuan Hu

P-IMM 1008US

1623

7590 10/10/2007
Law Office of David Spolter
G Singer
30 South Adelaide Ave #5M
Highland Park, NJ 08904

EXAMINER

VIVLEMORE, TRACY ANN

ART UNIT

PAPER NUMBER

1635

MAIL DATE

DELIVERY MODE

10/10/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/570,911

Applicant(s)

HU ET AL.

Examiner

Tracy Vivlemore

Art Unit

1635

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 10-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-8 and 10-20 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group 1, claim(s) 1-8, drawn to a method for identifying an agent that inhibits cancer cells wherein the agent binds to SEQ ID NO: 6.

Group 2, claim(s) 1-8, drawn to a method for identifying an agent that inhibits cancer cells wherein the agent binds to SEQ ID NO: 13.

Group 3, claim(s) 1-8 drawn to a method for identifying an agent that inhibits cancer cells wherein the agent binds to SEQ ID NO: 1.

Group 4, claim(s) 1-8, drawn to a method for identifying an agent that inhibits cancer cells wherein the agent binds to SEQ ID NO: 2.

Group 5, claim(s) 1-8, drawn to a method for identifying an agent that inhibits cancer cells wherein the agent binds to SEQ ID NO: 3.

Group 6, claim(s) 1-8, drawn to a method for identifying an agent that inhibits cancer cells wherein the agent binds to SEQ ID NO: 4.

Group 7, claim(s) 1-8, drawn to a method for identifying an agent that inhibits cancer cells wherein the agent binds to SEQ ID NO: 5.

Group 8, claim(s) 10-15, drawn to a method for identifying an agent that inhibits cancer cells wherein the agent binds to SEQ ID NO: 12.

Group 9, claim(s) 10-15, drawn to a method for identifying an agent that inhibits cancer cells wherein the agent binds to SEQ ID NO: 14.

Art Unit: 1635

Group 10, claim(s) 10-15, drawn to a method for identifying an agent that inhibits cancer cells wherein the agent binds to SEQ ID NO: 7.

Group 11, claim(s) 10-15, drawn to a method for identifying an agent that inhibits cancer cells wherein the agent binds to SEQ ID NO: 8.

Group 12, claim(s) 10-15, drawn to a method for identifying an agent that inhibits cancer cells wherein the agent binds to SEQ ID NO: 9.

Group 13, claim(s) 10-15, drawn to a method for identifying an agent that inhibits cancer cells wherein the agent binds to SEQ ID NO: 10.

Group 14, claim(s) 10-15, drawn to a method for identifying an agent that inhibits cancer cells wherein the agent binds to SEQ ID NO: 11.

Group 15, claim(s) 16-20, drawn to a method of inhibiting cancer cells by introducing a molecule that binds to a nucleic acid comprising SEQ ID NO: 6.

Group 16, claim(s) 16-20, drawn to a method of inhibiting cancer cells by introducing a molecule that binds to a nucleic acid comprising SEQ ID NO: 13.

Group 17, claim(s) 16-20, drawn to a method of inhibiting cancer cells by introducing a molecule that binds to a nucleic acid comprising SEQ ID NO: 1.

Group 18, claim(s) 16-20, drawn to a method of inhibiting cancer cells by introducing a molecule that binds to a nucleic acid comprising SEQ ID NO: 2.

Group 19, claim(s) 16-20, drawn to a method of inhibiting cancer cells by introducing a molecule that binds to a nucleic acid comprising SEQ ID NO: 3.

Group 20, claim(s) 16-20, drawn to a method of inhibiting cancer cells by introducing a molecule that binds to a nucleic acid comprising SEQ ID NO: 4.

Group 21, claim(s) 16-20, drawn to a method of inhibiting cancer cells by introducing a molecule that binds to a nucleic acid comprising SEQ ID NO: 5.

The inventions listed as Groups 1-21 do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

Groups 1-7 do not share a special technical feature because each invention is directed to a method of identifying agents that inhibit cancer cells by binding that agent to distinct gene sequences, with SEQ ID NO: 6 corresponding to ZPK variant 2, SEQ ID NO: 13 corresponding to ZPK variant 1, SEQ ID NO: 1 corresponding to SCD, SEQ ID NO: 2

Art Unit: 1635

corresponding to CA12, SEQ ID NO: 3 corresponding to PIK3R4, SEQ ID NO: 4 corresponding to PLD3 and SEQ ID NO: 5 corresponding to HSPD1.

Groups 8-14 do not share a special technical feature because each invention is directed to a method of identifying agents that inhibit cancer cells by binding that agent to distinct domains of protein sequences, with SEQ ID NO: 12 corresponding to the protein kinase domain of ZPK variant 2, SEQ ID NO: 14 corresponding to the protein kinase domain of ZPK variant 1, SEQ ID NO: 7 corresponding to the fatty acid desaturase domain of SCD, SEQ ID NO: 8 corresponding to the carbonate anhydrase domain of CA12, SEQ ID NO: 9 corresponding to the protein kinase domain of PIK3R4, SEQ ID NO: 10 corresponding to an active site motif of PLD3 and SEQ ID NO: 11 corresponding to the chaperone portion of HSPD1.

Groups 15-21 do not share a special technical feature because each invention is directed to a method of inhibiting cancer cells using an agent that binds to distinct gene sequences, with SEQ ID NO: 6 corresponding to ZPK variant 2, SEQ ID NO: 13 corresponding to ZPK variant 1, SEQ ID NO: 1 corresponding to SCD, SEQ ID NO: 2 corresponding to CA12, SEQ ID NO: 3 corresponding to PIK3R4, SEQ ID NO: 4 corresponding to PLD3 and SEQ ID NO: 5 corresponding to HSPD1.

Groups 1-7 do not share a special technical feature with groups 8-14 because the special technical feature of groups 1-7 is the identification of agents that inhibit cancer cells by binding an agent to a gene sequence while the special technical feature of groups 8-14 is the identification of agents that inhibit cancer cells by binding an agent to a protein domain sequence.

Groups 1-7 do not share a special technical feature with groups 15-21 because the special technical feature of groups 1-7 is the identification of agents that inhibit cancer cells while the special technical feature of groups 15-21 is the inhibition of cancer cells.

Groups 8-14 do not share a special technical feature with groups 15-21 because the special technical feature of groups 8-14 is the identification of agents that inhibit cancer cells by binding an agent to a protein domain sequence while the special technical feature of groups 15-21 is the inhibition of cancer cells.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tracy Vivlemore whose telephone number is 571-272-2914. The examiner can normally be reached on Mon-Fri 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. Douglas Schultz can be reached on 571-272-0763. The fax phone

Art Unit: 1635

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Tracy Vivlemore
Examiner
Art Unit 1635

TV
October 4, 2007

A handwritten signature in cursive script, reading "Tracy Vivlemore". The signature is written in dark ink and is positioned below the typed name and title.